WHAT IS CLAIMED IS:

1.   A method of demodulating and decoding an encoded interleaved
signal, said method comprising:

5   demodulating a received encoded interleaved signal thereby
producing soft-decision demodulated output words;

          de-interleaving and scaling said soft-decision demodulated
output words thereby producing de-interleaved and scaled words,
said scaling being performed for a plurality of successively

10   demodulated output words at a time, thereby applying scaling
factors that have substantially the same value for adjacent
demodulated output words of said plurality of successively
demodulated output words, said de-interleaved and scaled words
being word-length-reduced words; and

15   decoding said de-interleaved and scaled words.

2.   A method as claimed in Claim 1, thereby first applying
intermediate scaling factors to said plurality of successively
demodulated output words, and then determining said scaling

20   factors from said intermediate scaling factors such that said
adjacent demodulated output words have said substantially same
scale factor applied.

3.   A method as claimed in Claim 2, wherein said determining of

25   said scaling factors from said intermediate scaling factors
achieves a uniform scaling factor for said plurality of
successively demodulated output words.

4.   A method as claimed in Claim 2, therein performing said

30   scaling in a de-interleaving memory, said application of said
intermediate scaling factors being done while writing said
plurality of successively demodulated output words into said de-

interleaving memory, and said determining of said scaling factors from said intermediate scaling factors being done in-place in said de-interleaving memory.

5   5.   A method as claimed in Claim 2, therein increasing a previously determined intermediate scaling factor for a current demodulated output word if said current demodulated output word exhibits a predetermined number of underflows.

10   6.   A method as claimed in Claim 2, therein decreasing a previously determined intermediate scaling factor for a current demodulated output word if said current demodulated output word exhibits a predetermined number of overflows.

15   7.   A method as claimed in Claim 1, therein performing said scaling in a de-interleaving memory and determining said scaling factors through digital low pass filtering while writing said plurality of successively demodulated output words into said de-interleaving memory.

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8.   A method as claimed in Claim 1, therein demodulating said received encoded interleaved signal with a rake receiver.

9.   A method as claimed in claim 1, wherein said soft-decision
25   demodulated output words are log-likelihood ratios, and said decoding is maximum likelihood decoding.

10.   A method as claimed in Claim 9, therein performing said maximum likelihood decoding through a Viterbi algorithm.

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11.   A method as claimed in Claim 1, wherein said received encoded interleaved signal is convolutional encoded.

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12. A receiver for receiving an encoded interleaved signal, said
receiver comprising:

    a demodulator for demodulating said received encoded
5   interleaved signal, said demodulator producing soft-decision
demodulated output words;

    a de-interleaving and scaling memory for de-interleaving and
scaling of said soft-decision demodulated output words, said
receiver being configured to produce de-interleaved and scaled
10   words in said de-interleaving and scaling memory for a plurality
of successively demodulated output words at a time, thereby
applying scaling factors that have substantially the same value
for adjacent demodulated output words of said plurality of
successively demodulated output words, said de-interleaved and
15   scaled words being word-length-reduced words; and

    a decoder for decoding said de-interleaved and scaled words.

13. A receiver as claimed in Claim 12, said receiver further
being configured to first apply intermediate scaling factors to
20   said plurality of successively demodulated output words, and then
determine said scaling factors from said intermediate scaling
factors such that said adjacent demodulated output words have
said substantially same scale factor applied.

25   14. A receiver as claimed in Claim 12, said receiver being
configured to apply said intermediate scaling factors while
writing said plurality of successively demodulated output words
into said de-interleaving memory, and to do said determination of
said scaling factors from said intermediate scaling factors in-
30   place in said de-interleaving and scaling memory.

15. A receiver as claimed in Claim 13, said receiver being

configured to increase a previously determined intermediate scaling factor for a current demodulated output word if said current demodulated output word exhibits a predetermined number of underflows.

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16. A receiver as claimed in Claim 13, said receiver being configured to decrease a previously determined intermediate scaling factor for a current demodulated output word if said current demodulated output word exhibits a predetermined number of overflows.

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17. A receiver as claimed in Claim 13, said receiver being configured to achieve a uniform scaling factor for said plurality of successively demodulated output words when determining of said scaling factors from said intermediate scaling factors.

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18. A receiver as claimed in Claim 12, further comprising a digital low pass filter, said receiver being configured to determine said scaling factors through digital low pass filtering of said soft-decision demodulated output words with said digital low pass filter while writing said plurality of successively demodulated output words into said de-interleaving memory.

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19. A receiver as claimed in Claim 12, wherein said demodulator is a rake receiver.

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20. A receiver as claimed in Claim 12, wherein said decoder is a Viterbi-decoder.